REMARKS

Claims 1 and 5-14 are all the claims pending in the application.

Applicants thank Examiner Heitbrink for the courtesies extended to Applicants'
representative during the personal interview conducted on June 9, 2008. Applicants separate
record of the substance of that interview is incorporated into the following remarks.

I.   Rejection Under 35 U.S.C. § 102(b)

Claims 1 and 5-14 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yu et al
(U.S. Patent 6,096,088). The Examiner alleges that Yu discloses each claimed feature.

Applicants traverse the rejection.

Independent claims 1 and 12-14, from which all claims variously depend, recite *"wherein
an area in which weld line occurrence is intended to be suppressed or controlled is divided into
a plurality of areas and a weighting weld line occurrence quantity in the plurality of the areas is
used as a weld line evaluation value. "* Such "weighting" of weld line occurrence is useful in
simulation and may occur by inputting a weighting factor into an objective function, e.g.,

> [Objective function = A × δ + B], where A is the number of weld lines
> formed (number of nodes) within a specified area, B (ton) is the mold clamping
> force required for molding, and δ is the weighting factor (See specification at
> paragraphs [0070] to [0079].)

Single or multiple areas may be targeted for suppressing weld line occurrence.
Additionally, the weighted sum in each area can address a plurality of areas having different
degrees of importance. Such weighting increases the ability to more finely control weld line
generating positions (See *id.*). Yu nowhere discloses these features.

In contrast, Yu generally discloses modeling, but not the features of the particular type of
modeling claimed. Yu merely describes, as impractical, a procedure for subdividing regions

representing injection points into small subdomains (i.e., "meshing"); and that it is possible to predict the location of weld lines and air traps using simulation techniques (see, for example, column 1, lines 23-26; and column 2, lines 10-38). Yu also only generally states that calculations can provide information used to improve processing conditions, such as improved position of injection locations, improved geometry, etc. (see, for example, column 13, lines 10-45).

For at least the foregoing reasons, instant Claims 1 and 12-14, from which all claims variously depend, are patentable. Reconsideration and withdrawal of the rejection are earnestly solicited.

II.   Rejection Under 35 U.S.C. § 102(e)

At page 3 of the Office Action, claims 1 and 5-14 are rejected under 35 U.S.C. § 102(e) as anticipated being anticipated by Friedl et al (U.S. Patent 6,816,820). The Office Action alleges that Friedl discloses each claimed feature.

Applicants traverse the rejection.

Applicants explain "weighting" above. Friedl similarly fails to disclose at least the claimed features *"wherein an area in which weld line occurrence is intended to be suppressed or controlled is divided into a plurality of areas and a weighting weld line occurrence quantity in the plurality of the areas is used as a weld line evaluation value."* Rather, Friedl discloses a discretizing step that may include the substep of generating a finite element mesh by subdividing a model into a plurality of connected elements defined by a plurality of nodes (see, for example column 6, lines 23-28).

For at least the foregoing reasons, instant Claims 1 and 12-14, from which all claims variously depend, are patentable. Reconsideration and withdrawal of the rejection are earnestly solicited.

III.   Rejection Under 35 U.S.C. § 103(a)

Claims 1 and 5-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either of Yu or Friedl in view of Norton (U.S. Patent 6,454,973). Yu and Friedl are applied as above. Norton is cited for disclosing problems overcome by using time sequenced valve gates in injection molding. It would allegedly thus have been obvious to have used the flow analysis of Yu or Friedl for determining the fill sequence and clamping force, as those parameters are commonly optimized in injection molding.

Applicants traverse the rejection.

This rejection is moot due to its reliance upon the improper anticipation rejections over Yu and Friedl. Moreover, Norton does not remedy the deficiencies of either Yu nor Friedl. Rather, Norton is merely generally directed toward minimizing clamp pressure by regulating the flow of the plastic material through the channels (see, for example column 1, line 47-column 2, line 8). Accordingly, Norton nowhere discloses "wherein an area in which weld line occurrences intended to be suppressed or controlled is divided into a plurality of areas and awaiting weld lines occurrence quantity in the plurality of the areas as used as a weld line evaluation value." Such a feature would not have been obvious over any combination of Norton, Friedl and Yu, at least because having combined the references would not have obtained the claimed features.

IV.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The U.S. Patent and Trademark Office is directed and authorized to charge all required

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Respectfully submitted,

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